

## ALS50-24

### Description:

The ALS50-24 is a single output power supply. It provides a DC output power in a cost-effective open frame package. Excellent performance specifications are provided, together with compliance to European EMC (EN55022, Class A), and Low Voltage directive (TUV EN60950).

### Specifications (@25°C)

#### Input Characteristics:

|                            |                                    |
|----------------------------|------------------------------------|
| Input Voltage (5):         | 110/220Vac (90-260Vac, 120-370Vdc) |
| Input Frequency Range (1): | 47-63Hz                            |
| Max Input Current:         | 1.0A @ 110Vac; 0.5A @ 220Vac       |
| Max Inrush Current:        | 30A @ 220Vac                       |
| Hold-Up Time:              | 17ms typ @ 110Vac, 100% Load       |

#### Output Characteristics:

|                               |                                                          |
|-------------------------------|----------------------------------------------------------|
| Output Voltage:               | 24.0Vdc                                                  |
| Output Current (1):           | 2.1A                                                     |
| Output Power (1):             | 50.4W                                                    |
| Ripple & Noise (20 MHz BW):   | 240mV                                                    |
| Line Regulation (4):          | 1.0%                                                     |
| Load Regulation (3):          | 2.0%                                                     |
| Temperature Drift:            | 0.02%/°C                                                 |
| Rise-up Time:                 | 500ms max, 110Vac, 100% Load                             |
| Over Current Protection:      | Shutdown, O.C.P Point>120%, recycle AC supply to recover |
| Over Voltage Protection:      | >105% Zener across output                                |
| Short Circuit Protection:     | Unit shutdown, recycle AC supply to recover              |
| Adj. O/P Voltage Range (1,2): | ±10%                                                     |

#### Environmental Specifications:

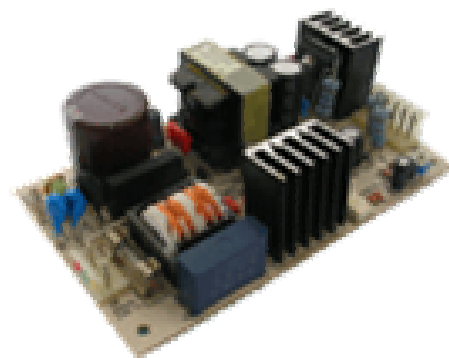
|                        |                                                       |
|------------------------|-------------------------------------------------------|
| EMI (Conducted RFI):   | Built to comply with EN55022-B                        |
| EFT:                   | Built to comply with IEC61000-4-4                     |
| ESD:                   | Built to comply with IEC61000-4-2                     |
| Surge:                 | Built to comply with IEC61000-4-5                     |
| Operating Temperature: | Convection cooling 0 to 50°C:100%; 60°C:70%           |
| Operating Humidity:    | 30% to 90% RH                                         |
| Storage Temperature:   | -25 to 85°C                                           |
| Storage Humidity:      | 10% to 95% RH                                         |
| Cooling:               | Convection cooling                                    |
| Vibration:             | 1min sweep 10-55Hz, 2G Amplitude, X,Y,Z axis 1hr each |
| Shock:                 | <20G                                                  |

#### General Specifications:

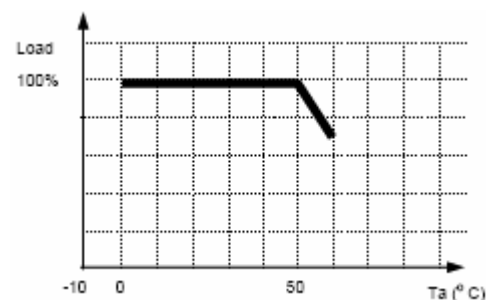
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|---------------------|---------------------------|
| Efficiency:         | 70% Typical               |
| Dimensions (WxLxH): | 76.20x127x35.56mm         |
| Weight:             | 300g                      |
| Warranty:           | 2 years @ 40°C, 100% Load |

#### Safety Standards:

|                        |                                                                      |
|------------------------|----------------------------------------------------------------------|
| Standard:              | UL1950 (E204980)<br>TUV EN60950 (50070245)<br>Built to meet CSA 22.2 |
| Dielectric Strength:   | I/P-O/P:3kVac, I/P-FG:2.5kVac, <10mA, 1min                           |
| Insulation Resistance: | O/P-FG: 500VDC>100Mohms                                              |



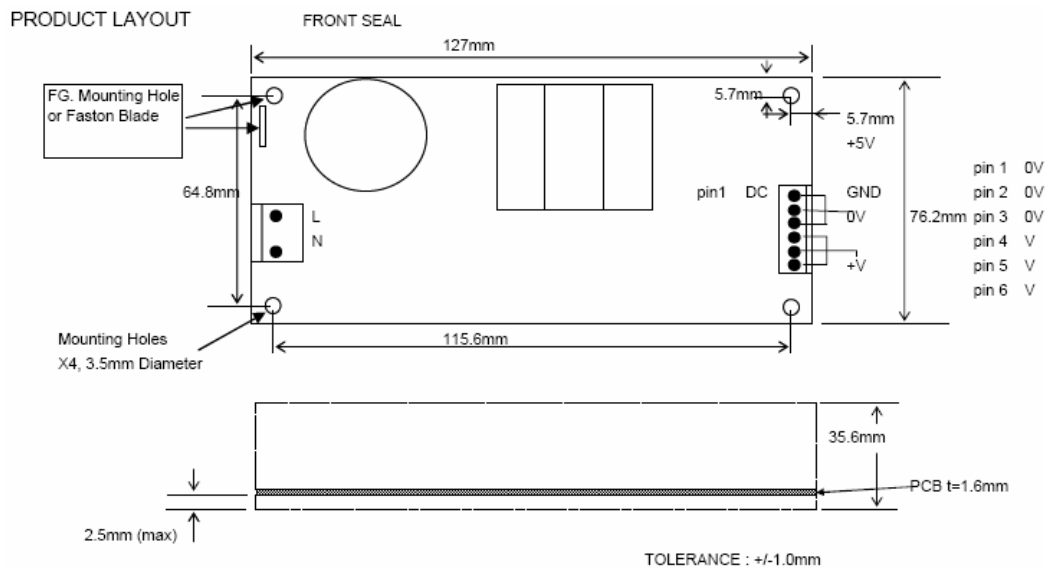
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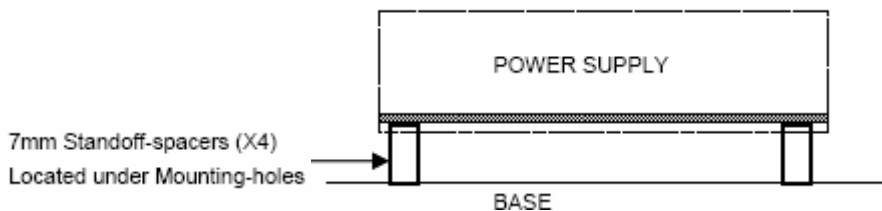
### Technical Notes:

1. Throughout  $V_{in}$  range.  $V_{out}$  must be measured as near as possible to power supply.
2. Total output power by any combination of channel must not exceed  $P_{ou(m)}$ .
3.  $V_{out}$  deviation as  $I_{out}$  varies from  $I_{o(min)}$ - $I_{o(max)}$ .
4.  $V_{out}$  deviation as  $V_{in}$  varies from 90 – 260Vac.
5. Where UL and CSA is concerned, official rated input voltage range is 100-120Vac/200-240Vac.

### Outline Dimensions (mm):



### Mounting Method:



### Connector Types:

AC Housing: Molex 09-50-3031  
DC Housing: Molex 09-50-3061

Crimp Terminals: Molex 08-50-0105  
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**RoHS Compliance:** This power supply meets the requirements of 2002/95/EC, known as the RoHS initiative.

\* Upon printing, this document is considered "uncontrolled". Please contact Triad Magnetics' website for the most current version.

# AMEYA360

## Components Supply Platform

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